

(No Model.)

J. P. KETTERINGHAM.

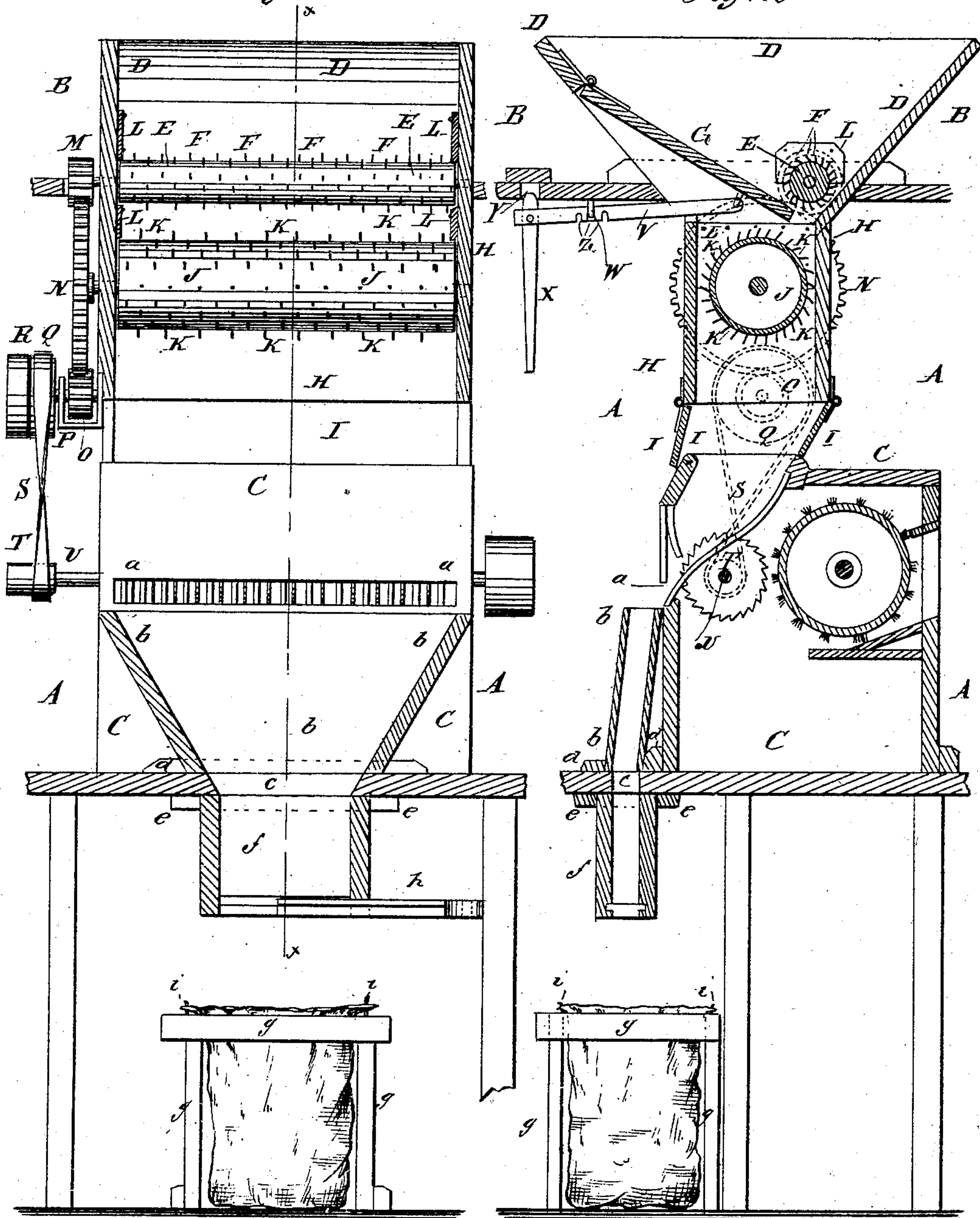
COMBINED FEEDER AND HOPPER FOR COTTON GINS.

No. 354,322.

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Fig. 1.

Fig. 2.



WITNESSES:

*Chas. Nida.*  
*C. S. S. S. S.*

INVENTOR:

*J. P. Ketteringham*  
BY *Mum & Co.*  
ATTORNEYS.



# UNITED STATES PATENT OFFICE.

JOHN PALMER KETTERINGHAM, OF NATCHEZ, MISSISSIPPI, ASSIGNOR TO  
HIMSELF AND LOUIS BOTTO, OF SAME PLACE.

## COMBINED FEEDER AND HOPPER FOR COTTON-GINS.

SPECIFICATION forming part of Letters Patent No. 354,322, dated December 14, 1886.

Application filed June 15, 1886. Serial No. 205,229. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN PALMER KETTERINGHAM, of Natchez, in the county of Adams and State of Mississippi, have invented a new and useful Improvement in Combined Feeders and Hoppers for Cotton-Gins, of which the following is a full, clear, and exact description.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in both the figures.

Figure 1 is a sectional front elevation of my improved feeder and hopper shown as applied to a cotton-gin. Fig. 2 is a sectional side elevation of the same, taken through the line *x x*, Fig. 1.

The object of this invention is to provide combined feeders and hoppers for cotton gins, constructed in such a manner that the cotton will be fed to the gins uniformly, that the feeders can be readily adjusted to feed more or less cotton in a given time, and that the feeders will not have to be moved when it becomes necessary to remove the gin-saws.

The invention consists in the construction and combination of various parts of the combined feeder and hopper, as will be hereinafter fully described and then claimed.

A represents the gin-room. Above the gin-room A is the room B, from which the cotton is fed to the gin C. The gin C can be of any ordinary construction.

In the floor of the feed-room B, and directly over the gin C, is formed an opening, in which is secured the hopper D. In the lower part of the hopper D, and directly over the discharge-opening of the said hopper, is placed a cylinder, E, the face of which is provided with teeth F, and which is journaled into the sides of the said hopper D, so as to feed the cotton through the said discharge-opening.

The lower part, G, of one side of the hopper D is hinged at its upper edge to the lower edge of the stationary part of the said side of the hopper, so the lower edge of the said part G can be moved toward or from the said toothed cylinder E, to regulate the size of the discharge-opening of the said hopper, and consequently the amount of cotton fed out of the said hopper.

To the lower part of the hopper D, and surrounding its discharge-opening, is secured the upper end of a vertical spout, H, the lower end of which terminates at such a distance above the gin C as to give free access to the said gin to remove or insert the saws, or for any other required purpose. The space between the lower end of the spout H and the feed-opening of the gin C is inclosed by hinged boards I, to prevent the cotton from being scattered, and which can be readily turned up out of the way when access to the said gin C is required.

If desired, the hinged sections I of the spout H can be replaced by a spout of canvas or other suitable material that can be readily turned up out of the way.

Within the upper part of the spout H is placed a cylinder, J, which is journaled into the ends of the spout H, and the face of which is provided with teeth K, to take the cotton from the hopper D and feed it down through the said spout H to the gin C.

The hopper D and spout H over ends of the toothed cylinders E J are covered with leather flaps L, to prevent the cotton from working in around the said ends and becoming wound around the journals of the said cylinders. The flaps L of the upper cylinder, E, are attached to the hopper D, and the flaps L of the lower cylinder, J, are attached to the spout H.

To a projecting journal of the toothed cylinder E is attached a pinion-wheel, M, into the teeth of which mesh the teeth of the gear-wheel N, attached to a projecting journal of the lower cylinder, J. The teeth of the gear-wheel N also mesh into the teeth of a pinion-wheel, O, journaled into the lower part of the spout H, and a bracket, P, attached to the said spout. The outer journal of the pinion-wheel O projects, and is provided with a fast pulley, Q, and a loose pulley, R, to receive the belt S, which also passes around a pulley, T, attached to a journal of the saw-mandrel U of the gin C, so that the said toothed cylinders will be driven from the said saw-mandrel.

To the outer side of the lower part of the hinged gate G is hinged the inner end of a bar, V, which slides in a keeper, W, attached to the ceiling of the gin-room A. The outer end of the sliding bar V is pivoted to the upper part of a lever, X, the upper end of which is ful-



crummed in a recess, Y, in the ceiling of the gin-room A. The lower end of the lever X extends down into such a position that it can be readily reached and operated by an attendant, to regulate the feed of cotton to the gin. Several recesses, Z, are formed in the lower side of the sliding bar V to receive the keeper W, so that the said sliding bar V, and with it the gate G, will be held securely in any position into which they may be adjusted.

Directly beneath the seed-discharge opening *a* of the gin C is placed the upper end of a spout, *b*, which said upper end is made of the same width as the said discharge-opening. The spout *b* is tapered toward its lower end, which rests upon the floor of the gin-room, around an opening, *c*, through the said floor, where it is secured in place by cleats *d*, attached to the said floor. To the lower side of the floor of the gin-room, and around the opening *c*, is secured by cleats *e*, or other suitable means, the upper end of a vertical spout, *f*, the lower end of which terminates at such a distance above the bag-holder *g* as will allow a bag to receive the cotton seed to be readily placed in and removed from the said bag-holder.

The lower end of the spout *f* is closed by a gate, *h*, to prevent seeds from escaping while a full bag is being removed from the bag-holder *g* and an empty bag is being secured in place. The bag-holder *g* is made of an upright frame of sufficient size to receive a bag, and of such a height as to allow the bottom of the bag to rest upon the floor when the said bag is filled.

To the top of the bag-holder *g* are attached hooks *i*, upon which the upper edge of the bag is hooked to support the said bag and keep its mouth open while receiving seed.

With this improvement the seeds will not have to be handled after they are discharged from the gin, but will be automatically sacked, ready for removal from the gin-house.

Having thus fully described my invention, I claim as new and desire to secure by Letters Patent—

1. The combination, with a cotton-gin, C, and the feed-hopper D, of the vertical feed-spout H, the toothed cylinder E, placed in the lower part of the said hopper, and the toothed cylinder J, placed in the upper part of the said spout, their driving mechanism, and the hinged spout-sections I, substantially as herein shown and described, whereby the cotton placed in the said hopper will be fed to the said gin in uniform quantities, as set forth.

2. In a combined feeder and hopper for cotton-gins, the combination, with the hinged gate G of the hopper D and the toothed cylinder E, of the sliding bar V, hinged to the said gate, the keeper W, supporting the said sliding bar, and the lever X, pivoted to the said sliding bar, substantially as herein shown and described, whereby the quantity of cotton fed to the gin can be readily regulated, as set forth.

JOHN PALMER KETTERINGHAM.

Witnesses:

WALTER MCCREA,  
WM. W. BOWIE.